Table 1. Summary of Tar Results (mg/cigt.)

|  | QA 1990<br><u>Year Average</u> | Specification Tar | Philip Morris<br>Advertised Tar | TITL Market<br>Sample #32 <sup>2</sup> | TITL Market Sample #333 | TITL Market<br>Sample #33<br>Rounded Values |
|--|--------------------------------|-------------------|---------------------------------|--|-------------------------|---|
| Alpine 80 Menthol (Box)                                  | 14.8                           | 15.0              | 15                              | 15                                     | 15.2                    | 15  |
| Alpiner 85 Mentholess on the control of the              | 15.2                           | 15.0              | 15                              | 17                                     | 15.6                    | 16-   |
| Alpine Lights 85 Menthol                                 | 10.1                           | 10.0              | . 9                             | 9                                      | 9.3                     | 9   |
| Alpine Lights 80 Men (Box)                               | <sub>1</sub> 9.9               | 10.0              | 1.0                             | . 10                                   | -9.0                    | <b>№9</b>                                   |
| Alpine 100 Menthol                                       | 15.1                           | 15.0              | 15                              | 15                                     | 14.7                    | 15  |
| Alpine Lights 100 Menthol                                | 10.2                           | 10.0              | 9                               | 9                                      | 9.4                     | 9   |
| Benson & Hedges 85 (Box)                                 | 14.5                           | 14.5              | 15                              | 15                                     | 14.9                    | 15  |
| Benson $\mathbf{a}_{k}$ Hedges $\mathbf{A}_{0}$          | 16,.5                          | 16.0              | 17                              | 1.7                                    | 15.7                    | 16  |
| Benson: Hedges 1000: Menthol                             | 16.0                           | 16.0              | 16                              | 16                                     | 15.4                    | 15  |
| Benson & Hedges 100 (Box)                                | 16.1                           | 16.0              | 16                              | 16                                     | 15.7                    | 16  |
| Benson & Hedges Men. 100 (Box)                           | 16.0                           | 16.0              | 16                              | 16                                     | 15.9                    | 1.6   |
| Benson Hedges Lights 100 : ; ;                           | 10.9                           | 10.5              | 11                              | 11                                     | 10.4                    | 10  |
| Benson & Hedges Lights 100 (Box)                         | 11.0                           | 10.5              | 11                              | 11                                     | 10.8                    | 11  |
| Benson: Hedges: Lights Men., 100;                        | 11,.1                          | 10.5              | 11                              | 11                                     | .9°. 9                  | 10  |
| Benson & Hedges Lights Men.                              |                                |                   |                                 |  |                         |   |
| 100 (Box)  | 11.1                           | 10.5              | 10                              | 10                                     | 10.3                    | 10  |
| Benson & Hedges DeLuxe Ultra                             |                                |                   |                                 |  |                         |   |
| Lights 100 (Box)   | 6.0                            | 6.0               | 5                               | 5                                      | 5.0                     | 5   |
| Benson & Hedges DeLuxe Ultra                             |                                |                   |                                 |  |                         |   |
| Lights Menthol 100 (Box)                                 | 5 <sub>1</sub> . 9             | , 6. Q · · · · ·  | ., 5, -                         | - · Б                                  | , 4, 4                  | ••4   |
| B & H Multifilter 85                                     | 11.4                           | 11,5              | 1.1                             | 11                                     | 10.9                    | 11  |
| Cambridge Ultra Lights 100                               | 4.8                            | 5.0               | 4                               | 4                                      | 4.0                     | 4   |
| Cambridge Lights 85                                      | 11.9                           | 12.0              | 12                              | 12                                     | 11.5                    | 12  |
| Cambridge Lights Menthol 85                              | 12.4                           | 12.0              | 12                              | 12                                     | 11.6                    | 12  |
| Cambridge Lights 100                                     | 11.9                           | 12.0              | 12                              | 12                                     | 11.5                    | 12  |
| -Cambridge, Lights Menthol-100.                          |                                | 124.0             | : 12,                           | f <b>1.2</b> r ·                       | 11,2-                   | . 241                                       |
| Cambridge Full Flavor 85                                 | 16.4                           | 16.0              | 17                              | 17                                     | 16.5                    | 17  |
| Cambridge Full Flavor 100                                | 16.2                           | 16.0              | 17                              | 17                                     | 16.7                    | 17  |
| Constinct and Official (South (BOX)) and a literature of | imia kidi. <b>8</b> ₄ 7⊞ - 1.  | 194.10 I          | .N.L.                           | ; <b>9</b> j                           | .: 18. 14               |   |
| Canthernal (On 20/15 H (BOX)) and a mark a fi            |                                | 9.0               | 9.                              | , n. 9 <sub>i</sub>                    |                         | 8   |
| Cantinemalipolazoras Men. (Box)                          |                                | 91. 0             | 9                               | . 9 <sub>i</sub>                       | 1.8.4                   |   |

Table 1. (cont.)

|  | QA 1990<br>Year Average   | SpecificationTar                 | Philip Morris<br>Advertised Tar | TITL Market Sample #32² | TITL Market Sample #333               | TITL Mar<br>Sample †<br>Rounded V | #33      |
|--|---|----------------------------------|---------------------------------|-------------------------|---------------------------------------|-----------------------------------|----------|
| Cartier 100 10's Men. (Box)                                      | <b>9</b> ∰ <b>2</b> ⊡   | 9:0                              | Ň.L.                            | 19                      | 8.4                                   | 87                                |          |
| Commander 70 (NF)  | 20,4  | 19.0                             | 24                              | 24                      | 21.8                                  | -   22                            |          |
| Commander King (NF)  | 23.0  | 23.0                             | 26                              | 26                      | 26.4                                  | 26                                |          |
| English Ovals 85 NF (Box)  | 21.3  | 22.0                             | 23                              | 23                      | 23.1                                  | 23                                |          |
| Marlboro 80 (Box)  | 16.2  | 16.0                             | 17                              | : :17                   | , 15.7:                               | · <sub> </sub> · 16               |          |
| Marlboro 85,   | 16.2  | 16.0                             | 17                              | 17                      | .: 1:58                               |                                   |          |
| Marlboro 85 25's   | 16.1*   | 16.0                             | 17                              | 17                      | 15.8                                  | . : : · · m 16                    |          |
| Marlboro Lights 85   | 11.0  | 11.0                             | 11                              | 1.1                     | 10.6                                  | 11                                |          |
| Marlboro Lights 85 25's  | 10.7*   | 11.0                             | 11                              | 11                      | 10.8                                  | 11                                |          |
| Marlboro Lights 85 (Box)   | 11.0  | 11.0                             | 11                              | 11                      | 10.5                                  | 10                                |          |
| Marlboro Lights 100  | 10, 8,  | 11.0                             | 11                              | 11                      | 10.19                                 | · [] [10                          |          |
| Marlboro Lights 100 (Box)  | 10.9  | 11.0                             | . 11                            | 11                      | 10.0                                  | · I i.   i 10                     |          |
| Marlboro Menthol 85  | 15.1  | 15.0                             | 16                              | 16                      | 15.9                                  | 16                                |          |
| Marlboro 100   | 16.2  | 16.0                             | 16                              | 16                      | 15.5                                  | 16                                |          |
| Marlboro 100 (Box)   | 16.1  | 16.0                             | 17                              | 17                      | 15.8                                  | 1.6                               |          |
| Manlboro Lights Men. 85 (Box)                                    | 10.0  | 10.0                             | 10                              | 10                      |                                       |                                   | 47       |
| Marlboro Ultra Lights 85   | 10.2.   | 1.0; Q.                          | . 10 .                          | 10 . :                  | 9.3                                   | i 9a                              | <b>*</b> |
| Marlboro Ultra Lights 85   | · 5. 7 <sub>0</sub> .   | 6. <u>Q</u>                      | ş.; <b>6</b>                    | N.L.                    | i : . 5 <sub>1.</sub> 4.,             | , ≱ n 1.1 ; 5 <sub>8</sub>        | ř        |
| \ (SidwemBox), F., Thirtie, 2 1. 1. 1. Marlboro Ultra Lights 100 | <b>5.3</b>  | . <b>6</b> - <b>0</b>            | . <u>.</u> . 6.                 | . N.,L.,                | , , , , , , , , , , , , , , , , , , , | ) մ հայում են 5 <sub>0</sub>      | *        |
| (Red Box)<br>Marlboro Ultra Lights 100                           | 6.2   | 6.0                              | 6                               | N.L.                    | 5.8                                   | 6                                 |          |
| (Silver Box)   | 6.2   | 6.0                              | 6                               | N.L.                    | 6.0                                   | б                                 |          |
| MemitmUlitmanLights,85mmm  |   | 5 <sub>1-1</sub> Q <sub>10</sub> | <b>5</b> į.                     |                         | , and $4_{j,\epsilon} 2_{j,\epsilon}$ | ara : 4 4×                        | •        |
| Memitaulitma iiights 85. (Box) - 14.                             | $\mathbf{a}_{a}$ $\mathbf{a}_{a}$ $\mathbf{A}_{b}$ $\mathbf{B}_{a a}$ | 5,4 <u>0</u> ,-                  | , 5 <sub>i</sub> ,              | , , 5 ,, ,              | i 4 <sub>1</sub> .5                   | . sind of 🔩                       | •        |
| Merit Ultra Lights Menthol 85                                    | 5.4   | 5.0                              | 5                               | 5                       | 4.7                                   | 5                                 |          |
| Merit Ultra Lights 100   | 5.7   | 6.0                              | 5                               | 5                       | 5.3                                   | 5                                 |          |
| Merit Ultra Lights 100 (Box)                                     | 6.1   | 6.0                              | 6                               | 6                       | 5.8                                   | 6                                 |          |

Table 1. (cont.)

|  | QA 1990<br><u>Year Average</u> | Specifica<br>Tar |    |   | p Mori |     |     | TITL Market<br>Sample #33 <sup>3</sup> | Sam | . Market<br>ple #33<br>led Values |
|--|--------------------------------|------------------|----|---|--------|-----|-----|--|-----|-----------------------------------|
|  |                                |                  |    |   |        |     |     |  |     |                                   |
| Merrit Ultra Lights Men. 100   | 5.8                            | 6.0              | •  | - | - 5    |     | 5   | 4.6                                    |     | 5.,                               |
| Megajat. 48,57 s (Boxi)  | 7,9                            | 8.0              |    |   |        |     |     | 7.3                                    |     | 7 <b>u</b>                        |
| Merritm85.   | 77                             | 8.0              |    |   | 8      |     | 8   | 7,4                                    |     | 7µ                                |
| Merit Menthol 85   | 8.4                            | 8.0              |    |   | 8      |     | 8   | 7.6                                    |     | 8`.                               |
| Merrit $\mathbf{t}_{\mathbf{n}}$ $\mathbf{L}_{0}$ $0_{\mathbf{n}}$ $\mathbf{n}_{0}$ $\mathbf{n}_{0}$ $\mathbf{n}_{0}$ $\mathbf{n}_{0}$ | 10,.0                          | 10.0             |    |   | 10     |     | 10  | 9.1                                    | i   | 9.                                |
| MennitaMenthoda, 1,0,0 a real constant   |                                | 10.0             | -  |   |        |     |     | 9.3                                    | 1   | 9)                                |
| MeritmDe-Nic, Low Tar, 85; ,   |                                | **               | -  | • | 9 :    | : L |     | 8.1                                    |     | 8,                                |
| MeritaDe-Nic Low Tar Men. 185  |                                | 9.0              |    |   | 9      |     |     | 7.7                                    |     | 8.                                |
| MenituDe-Nic.Ultra Low Tar 85,<br>Merit De-Nic Ultra Low Tar   | 1,3.6*,                        | **               |    |   | N. L.  |     | 4   | 3.3                                    |     | 3;                                |
| Menthole 85 and the state of the   | 3.6*                           | **               | -  |   | N.L.   |     | 4.  | 3.0                                    | 1   | 3₩                                |
| Nextrole-Nilo Jow Tan 85 ; 4 ; 4 ;   | ; i · 9.,2 ·                   | 9.0              |    |   | 9      |     | 9   | 8.0                                    |     | 8,                                |
| Nextaple-Nic, Low, Tar Menthol 85:   | .i. 9. 4                       | 9.0              |    |   | 9.     |     | 9   | 7.5                                    |     | 7₽                                |
| Next De-Nic Low Tar 100  | 9.1                            | 9.0              |    |   | 9      |     | 9   | 8.7                                    |     | 9                                 |
| Next De-Nicrilow, Tar, 100 Men   | 9.2                            | 9 ., 0           | -7 |   | 9 .    |     | 9   | 9.7                                    | :   | 1.0                               |
| Next De-Nic Ultra Low Tar 85   | 4.0*                           | 4.0              |    |   | N.L.   |     | 4   | 3.5                                    |     | 3                                 |
| Next De-Nic Ultra Low Tar  |                                |                  |    |   |        |     |     |  |     |                                   |
| Menthol 85   | 3.4*                           | 4.0              |    |   | N.L.   |     | 4   | 3.2                                    |     | 3                                 |
| Nextmore Night Ulitina, Low Tar, 100 in  | a : 1 5a. 1 * i                | 6.0              |    | : | N.L.   | į   | 6   | 5,0                                    |     | 5 <sub>18</sub>                   |
| Next De-Nic Ultra Low Tar  |                                |                  |    |   |        |     |     |  |     |                                   |
| MentholandQ1 team the fire and and a   | ., 5.5*                        | 6.0              | į  |   | N.L.   |     | 6   | 4.5                                    |     | 4                                 |
| Parliament Wights 80 (Box)   | 8.9                            | 9.⊦0             | 1  | 1 | 9.     |     | 9.  | 8.4                                    |     | 8₽                                |
| Parliament Lights 85   | 9.1                            | 9.0              |    |   | 9      |     | 9   | 9.1                                    |     | 9                                 |
| Parliament Lights 100  | 11.6                           | 11.5             |    |   | 12     |     | 12  | 11.5                                   |     | 12                                |
| Philip Morris International  |                                |                  |    |   |        |     |     |  |     |                                   |
| 100 (Box)  | 16.1                           | 16.0             |    |   | 17     |     | 17  | 16.5                                   |     | 1.7                               |
| Philip Morris International  |                                |                  |    |   |        |     |     |  |     |                                   |
| Menthol 100 (Box)  | 16.8                           | 16.0             |    |   | 17     |     | 17  | 16.6                                   |     | 17                                |
| Players 70 NF (Box)  | 22.4                           | 22.0             |    |   | 25     |     | 25  | 24.5                                   |     | 25                                |
| Players $\{851, (Box)_{1, 161, \dots, 161, \dots, 161, \dots}\}$   | 11 <sub>0</sub> 9              | 12,.,0,          | I  |   | 12 .   | ÷   | 12, | 11.4                                   |     | 11.                               |

Table 1. (cont.)

| Х  | QA 1990<br>Year Average | SpecificationTar     | Philip Morris<br>Advertised Tar | TITL Market Sample #32 <sup>2</sup> | TITL Market Sample #333 | TITL Market<br>Sample #33<br>Rounded Values |
|--|-------------------------|----------------------|---------------------------------|-------------------------------------|-------------------------|---|
| Players .85 Menthol (Box)                                    | 11.4                    | 1,2.0                | . 12                            | 12                                  | 11.2                    | 11.   |
| Players $_{\overline{\mathbf{k}}}$ 100- (Box)                | 13.9                    | 14.0                 | 14                              | , 14                                | 13.4                    | 13:   |
| Players 100 Menthol (Box)                                    | 14.5                    | 14.0                 | 14                              | 14                                  | 13.6                    | 14  |
| Players Lights 85 25's                                       | 10.0                    | 10.0                 | 10                              | 10                                  | 9.9                     | 10  |
| Players Lights 85 Menthol 25's                               | 10.0                    | 10.0                 | 10                              | 10                                  | 9.6                     | 10  |
| Alayers Lights 1,00 725's                                    | 11.9                    | 12.0                 | 12                              | . 12                                | 11.0                    | 1 1 <sub></sub>                             |
| Players Lights 100 Menthol 25's                              | 12.2                    | 12.0                 | 11                              | 12                                  | 10.8                    | 11  |
| Saratoga 120 (Box)   | 14.5                    | 14.5                 | 15                              | 15                                  | 14.7                    | 15  |
| Saratoga, 120 Menthol (Box) - 7                              | 14.4                    | 1,4.5                | 15                              | 15                                  | 13.8                    | 141   |
| Virginia Slims 100   | 14.6                    | 14.5                 | 15                              | 15                                  | 14.3                    | 14  |
| VingimijaSl.ims. Menthol: 100,                               | 14.8                    | 14.5                 | 1.5 <sup>-</sup>                | 15                                  | 14.4                    | 14m   |
| Virginia <sub>m</sub> Slims lights 100 (Box)                 | 8.9                     | 9.0                  | - 9 · ,                         | , 9                                 | 8.2                     | 8 14.                                       |
| Virginia <sub>m</sub> Slims, Lights, 100 Men. (Bo            | x) β.8                  | 9.0                  | 9 ,                             | - 9                                 | 7.6                     | · 8 <sub>#</sub> ,                          |
| Virginia <sub>ll</sub> SLims <sub>ll</sub> Lights, 120 (Box) | 14.0                    | - 1 <sub>1</sub> 4.0 | 14                              | 14 :                                | : 13. <sub>1</sub> 4 ·  | - 13mm                                      |
| Vigginiauskhims Enghts 1.20 Men. (Bo                         | x) 13.9                 | 1,4.0                | 14 ,                            | 14                                  | r 13.i3                 | 13₩   |
| Virginia Slims Ultra Lights                                  |                         |                      |                                 |                                     |                         |   |
| 100 (Box)  | 5.8                     | 6.0                  | 5                               | 5                                   | 5.1                     | 5   |
| Virginia Slims Ultra Lights                                  |                         |                      |                                 |                                     |                         |   |
| Menthol 100 (Box)  | 5.8                     | 6.0                  | 5                               | 5                                   | 4.8                     | 5   |
| Virginia Slims Superslims 100 (Bo                            | x) 5.5                  | 6.0                  | 6                               | б                                   | 6.0                     | 6   |
| Virginia Slims Superslims                                    |                         |                      |                                 |                                     |                         |   |
| Mentholl 100; (Box)  | 5.8                     | 16 <b>.</b> Q        | 6 .                             | , 6                                 | 5.3                     | 5,,   |

<sup>&</sup>lt;sup>1</sup> Purcell, Clare, "Tar and Nicotine Numbers," memo to Distribution, August 23, 1990.

N.L. = Not Listed

<sup>&</sup>lt;sup>2</sup> Steele, William L., letter to William F. Kuhn, March 13, 1991.

<sup>&</sup>lt;sup>3</sup> Steele, William L., letter to William F. Kuhn, March 11, 1991.

<sup>\*</sup>Cigarette Testing Services data

<sup>\*\*</sup>No record of tar specification in 1990.